

Prof Giuseppe Battaglia, Ph.D., FRSB, FRSC, FIMMM

Curriculum Vitae

1 Appointment Details

ICREA Professor from 2019	Catalan Institution for Research and Advanced Studies (ICREA) Engineering Sciences
Senior Group Leader from 2019	Institute for Bioengineering of Catalonia (IBEC) Barcelona Institute of Science and Technology (BIST) Molecular Bionics Group
Chair of Molecular Bionics from 2013	University College London Department of Chemistry Institute for the Physics of Living Systems Institute of Structural and Molecular Biology, Cancer Research UK City of London Centre

2 Education/Qualifications

2006	Ph.D. in Physical Chemistry , University of Sheffield, UK. Thesis title: Amphiphilic Polymeric Membranes Supervisor: Prof. A. J. Ryan
2001	Laurea in Chemical Engineering , Università Degli Studi di Palermo, Italy. Thesis title: γ -Radiation Synthesis and Characterisation of Hydrogels for Fragrance Sustained Release Supervisors: Profs. G. Spadaro and C. Dispenza

3 Professional History (in chronological order)

2011-2013	Chair of Synthetic Biology
2010-2011	Senior Lecturer of Bionanotechnology
2009-2010	Lecturer of Bionanotechnology The Krebs Research Institute, Department of Biomedical Science University of Sheffield Sheffield, UK
2006-2009	Lecturer of Bionanotechnology The Kroto Research Institute, Department of Materials Science and Engineering University of Sheffield Sheffield, UK
2001-2002	Research Process Engineer ICI Strategic Technology Group Wilton Centre, Redcar, UK

4 Other Appointments and Visiting Positions

2019-today	Chief Scientific Officer SomaServe Ltd., Cambridge, UK	2019-today	Visiting Professor Huaxi MR Research Center (HMRRRC) and State Key Laboratory of Biotherapy West China School of Medicine/West China Hospital of Sichuan University Chengdu, China
2021-today	Visiting Professor Department of Pharmaceutical Sciences. Università degli Studi di Milano Milan, Italy		

5 Prizes, Awards and other Honours:

Editorial board membership

2018-today	Member Polymers – Open Access Journal of Polymer Science -MDPI Group
2013-today	Member International Journal of Polymer Science -Hindawi Publishing Corporation
2012-today	Member Biomaterials Science - Royal Society of Chemistry
2015-2020	Member and Editor Scientific Reports -Nature Publishing Group
2012-2020	Member Journal of Biological Physics - Springer

Advisory board membership

2017-today	Member of the UCL Cancer Domain Steering group
2017-today	Member of the Rosalind Franklin Institute Steering group
2016-today	Nominator Nobel Prize in Chemistry
2015-2018	Member UCL@Crick Academic board
2010-2013	Member ('09-'10) and Treasurer ('10-'13) Biological Physics Group Committee of the Institute of Physics
2006-2010	Member Education Sub-Group of the Institute of Nanotechnology

Awards and Fellowships

2018	Fellow of the Institute of Materials, Minerals and Mining. this is bestowed to individuals who have made outstanding contributions to material science
2018	ERC Consolidator Award.
2017	Fellow of the Royal Society of Biology. this is bestowed to individuals who have made outstanding contributions to biology
2017	Fellow of the Royal Society of Chemistry. this is bestowed to individuals who have made outstanding contributions to chemistry
2017	The Anhui Province 100 talent. Visiting professorship and research money to foster collaborations with Anhui province (China) universities
2016	ESPRC Established Career Fellowship.
2015	McBain Medal. Awarded jointly by Society of Chemical Industries and the Royal Society of Chemistry Joint colloid group
2015	UCL Exceptional Contribution award. Given once a year as recognition of exceptional output production.
2014	RSC Thomas Graham Lecture. Awarded by the RSC Chilterns Middlesex Local Section Trust
2012	Special Award for contribution to the Polymer Therapeutics Community
2011	ERC Starting Grant Award.
2011	GSK Emerging Scientist Award. by the GSK board and the Academy of Pharmaceutical Science.
2011	PPG/DPOLY Polymer Physics Exchange Award. awarded by American Physical Society and the UK Institute of Physics.
2009 & 2010	University of Sheffield Exceptional Contribution award.
2009	Human Frontier Science Program Young Investigator award. (jointly with Prof A. Engler from UCSD)
2007	ESPRC First grant award.

Review panel membership

2012-today	Member EPSRC Peer Review College
2018	Member EPSRC Centre of Doctoral Training Prioritisation Panel
2018	Member EPSRC AI for Physical Science pitch Prioritisation Panel
2017	Member EPSRC Physical Science Prioritisation Panel
2016	Member EPSRC Material Science Prioritisation Panel
2015-today	Member Integration of Molecular Components in Functional Macroscopic Systems Review Panel Volkswagen Foundation (Germany)
2015 & 2016	Member TOP-PUNT Panel -NWO (Netherlands)
2009	Member ESF- COST Trans-domain proposals Panel
2009	Member EPSRC Joint Material Science and Physics Prioritisation Panel
2006-today	Ad hoc Reviewer for the: Engineering Physical Science Research Council (EPSRC), Biology and Biotechnology Research Council (BBSRC), Medical Research Council (MRC), Technology Strategy Board (TSB), European Research Council (ERC), UK Royal Society, US National Science Foundation (NSF), US Department of Energy (DoE), American Chemical Society Petroleum Research Fund (ACS-PRF), European Cooperation in Science and Technology (COST), Singapore's Agency for Science Technology and Research (A*STAR), Netherlands Organisation for Scientific Research (NWO), Belgian Research Foundation Flanders (FWO), The Swiss National Science Foundation (SNSF), Qatar National Research Fund (QNRF), Greek Government Research Program (Thalis), The Wellcome Trust, Cancer Research UK (CRUK), Rosetree Foundation, Volkswagen Foundation, Yorkshire Cancer Research (YCR), and Heart UK

6 Grants

Total to date: €38,290,484 (€23,521,640 as PI)

Current (PI) -€8,174,810

2021-2024	Plan Nacional MINECO €210,153
2020-2023	FEDER Equipment grant €3,457,562
2020-2023	MINECO Equipment grant €345,562
2020-2023	BBSRC DTA £81,181
2019-2023	Cancer Research UK City of London Cancer Centre £252,852
2018-2021	EPSRC/SomaNautix Healthcare Partnership £1,035,852
2018-2021	ESPRC DTA £70,891
2018-2021	ESPRC DTA £70,891
2017-2021	ERC Consolidator grant £1,843,850
2018-2022	ESPRC EngD/BTG. £119,502
2017-2021	ESPRC EngD/MedImmune. £89,752
2017-2020	Children with Cancer UK Research Project £378,800

Current (co-I) -€1,116,000

2022-2025	Beatriu de Pinós Fellowship €315,000 Dr Silvia Acosta Guitierrez (PI)
2021-2024	Caixa Junior Leader Fellowship €245,000 Dr Iris Batalha (PI)
2021-2024	Caixa Junior Leader Fellowship €245,000 Dr Mohit Kumar (PI)
2020-2023	Brain Tumour Research £75,000 Prof Sebastian Brander (UCL) (PI)
2020-2023	Ramsey Fellowship £115,000 Dr J. Forth (PI)
2020-2023	Caixa Junior Leader Fellowship €215,000 Dr D. Gonzalez-Carter (PI)
2019-2021	Marie Skłodowska Curie fellowship £175,000 Dr A. Castaño-Duro (PI)

Past (PI)

2016-2021	EPSRC Established Fellowship £1,816,800,
2016-2020	ESPRC/JEOL/DENSsolutions. £3,060,568
2016-2019	ESPRC DTA £70,591
2017-2019	ERC Proof of Concept Award €150,000,
2017-2018	BTG Inc. Research Project £65,000
2016-2017	ERC Proof of Concept Award €150,000
2014-2017	ESPRC/Astra Zeneca. £72,765
2013-2017	ESPRC EngD/Vectura. £79,561
2011-2016	ERC Starting Grant Award €1,643,736
2014-2015	MRC/UCL super resolution imaging £50,000
2011- 2014	Biocompatibles Int. plc. £56,768
2010-2014	EPSRC/Biocompatibles Int. plc. Healthcare partnership £1,157,702
2010-2014	Human Frontier Science Program Young Investigator award \$750,000 " jointly with Adam Engler (UCSD)
2009-2012	EPSRC and BBSRC Nanotechnology Grand Challenge for Healthcare £2,551,092
2009-2012	Yorkshire Forward Reckitt Benckiser - £322,695 jointly with Prof S. Armes
2008-2012	Yorkshire Cancer Research £96,319 jointly with Prof M. Thornhill
2008-2011	Biocompatibles Int. plc. £359,597
2007-2009	EPSRC First Grant Scheme £208,705

Past (co-I)

2018-2020	Marie Skłodowska Curie fellowship £175,000 Dr L. Rizzello (PI)
2018-2019	Royal Society Newton Post-Doctoral Fellowship £99,000 Dr A. Castaño-Duro (PI)
2014-2019	Alzheimer's Research UK Drug Discovery Institute £7,186,700. Prof G. Schiavo (PI)
2014-2017	NC3R Sainsbury Fellowship £143,000 A.Poma (PI)
2011-2016	EPSRC Platform Grant £1,226,426 Prof S. Armes (PI)
2014-2016	Royal Society Newton Post-Doctoral Fellowship £99,000 L. Rizzello (PI)
2009-2014	CRUK/EPSRC/DoH/MRC Programme Grant £2,396,540 Prof G. Tozer (PI)
2007-2010	Yorkshire Cancer Research £149,318 Dr J. Bury (PI)
2008-2009	Bardhan Research and Education Trust £53,456 Dr J. Bury (PI)
2007-2010	BBSRC Research Equipment Initiative £241,039 Prof J. Haycock (PI)

7 Invited Presentations

Conferences: Invited 61, Keynote: 28, Plenary: 10

99. Invited lecture: Advanced Functional Polymers for Medicine, July, 2021, online.meeting
98. Invited lecture: Network of Researchers on the Chemical Evolution of Life, March 2021, online meeting

97. Keynote lecture: Microscopy characterisation of organic-inorganic interfaces 2021, March 2021, online meeting
96. Keynote lecture: Microscopy Society of Ireland Symposium 2021, January 2021, online meeting
95. Keynote lecture: ImageNano 2020 Meeting, Sept 2020, online meeting
94. Keynote lecture: NanoBio&Med 2020 Meeting, July 2020, online meeting
93. Keynote lecture: 5th Transport at the Nanoscale meeting , February, 2020, Barcelona, Spain
92. Invited lecture: 5th NSF meeting on synthetic biology ", January 2020, Philadelphia, US
91. Plenary lecture: NanoBio&Med2019 Meeting, November 2019, Barcelona, Spain
90. Invited lecture: 5th International Symposium of the Collaborative Research "Multivalency in Chemistry and Biology", October 2019 Berlin, Germany
89. Plenary lecture: ICONAN 2019, October 2019, Munich, Germany
88. Invited lecture: 2019 Fall ACS National Meeting-Division of Colloid and Surface Chemistry Division Symposium "Nanoinformatics: Information and Data Sciences Applied to Nanomaterials Synthesis, Properties, and Biological Effects", August 2019, San Diego, US
87. Invited lecture: 2019 Fall ACS National Meeting-PMSE symposium "Design, Synthesis and Engineering of Polypeptides for Biological and Biomedical Applications", August 2019, San Diego, US
86. Invited lecture: 46th Controlled Release Society Annual Meeting, July 2019 Valencia, Spain
85. Invited lecture: Gordon Research Conference Cancer Nanotechnology, June 2019, West Dover, US
84. Keynote lecture: Frontiers in Biomedical Polymers, May 2019, Tenerife, Spain
83. Keynote lecture: 5th London Polymer Group symposium, April 2019, Canterbury, UK
82. Plenary lecture: 6th European Chemical Biology Symposium, April 2019, Madrid, Spain
81. Keynote lecture: Barcelona Institute of Science and Technology Microscopy Meeting, February 2019, Barcelona, Spain
80. Plenary lecture: Sociedad Española de Farmacia Industrial y Galénica, January 2019, Santiago de Compostela, Spain
79. Keynote lecture: Materials for People IoM³ Meeting, November 2018, London, UK
78. Plenary lecture: NanoBio&Med2018 Meeting, November 2018, Barcelona, Spain
77. Keynote lecture: 5th Symposium on Innovative Polymers for Controlled Delivery, Suzhou, China, September 2018
76. Keynote lecture: Trends in Nanotechnology, Lecce, Italy, September 2018
75. Keynote lecture: Frontiers in Delivering of Therapeutics, Tartu, Estonia, August 2018
74. Keynote lecture Symposium BiotechHealth, Porto, Portugal, July 2018
73. Plenary lecture: CHEM2NATURE Summer School, Porto, Portugal, June 2018

72. Invited lecture: UNESCO International Conference on Bionanomaterials, La Havana, Cuba, March 2018
71. Plenary lecture: 16th Iberian Peptide Meeting / 4th Chemical Biology Group Meeting, Barcelona, Spain, February 2018
70. Plenary lecture: NanoBio&Med2018 Meeting, November 2017, Barcelona, Spain
69. Keynote lecture: Controlled Release Society Italy Chapter, October 2017, Salerno, Italy
68. Keynote lecture: 4th Sino-UK plus bilateral Symposium on Macromolecules and Soft Matter, Hefei, China, September 2017
67. Keynote lecture: Galician Network of Nanotechnology, June 2017, Santiago, Spain,
66. Invited lecture: Workshop on Nanomedicine and Drug Delivery, May 2017, Tartu, Estonia
65. Invited lecture: 253rd ACS Annual Meeting Division of Polymer Chemistry Symposium on Next Generation Smart Materials, April 2017, San Francisco, USA
64. Invited lecture: 253rd ACS Annual Meeting Division of Polymeric Materials Science and Engineering Symposium on Janus Particles: Synthesis, Characterization & Applications, April 2017, San Francisco, USA
63. Invited lecture: Royal Society of Chemistry Chemical Nanoscience and Nanotechnology Annual Meeting, January 2017, Keele, UK
62. Keynote lecture: Conference on Horizontal Gene Transfer & Last Universal Cellular Ancestor, Nov 2016, Milton Keynes, UK
61. Invited lecture: Single Cell Analysis Congress, Nov 2016, London, UK
60. Invited lecture: 5th Workshop on biomaterials and their interactions with biological and model membranes Sept 2016, Salou, Spain
59. Keynote lecture: Helmholtz Graduate School for Macromolecular Bioscience Sept 2016, Berlin, Germany
58. Invited lecture: International Symposium on Stimuli-Responsive Materials, Oct 2016, Santa Rosa, USA
57. Plenary lecture: Royal Spanish Society of Chemistry and Physics Polymers Group Symposium , Sept 2016, Burgos, Spain
56. Invited lecture: Macro UK, June 2016, Warwick, UK
55. Invited lecture: British Gene Therapy meeting , April 2016, London, UK
54. Invited lecture: RSC Self assembly Materials for Biomedicine , April 2016, Reading, UK
53. Keynote lecture: 2nd Symposium London Polymer Group, April 2016, London, UK
52. Invited lecture: Advanced drug delivery workshop , March 2016, Manchester, UK
51. Invited lecture: Stem cells: from basic research to bioprocessing , Jun 2015, London, UK
50. Invited lecture: 13th Int. Conference on Polymers for Advanced Technologies, Jun 2015, Hangzhou, China
49. Invited lecture: The British Gene Therapy Society, June 2015, Glasgow, UK

48. Plenary lecture: Tailoring Nanomaterials for pharmaceutical and energy application, June 2015, Loughbrough, UK
47. Invited lecture: 3rd Precision Polymer Materials (P2M) conference, May 2015, Lacanau, France
46. Invited lecture: The BBB symposium, Kings' College, November 2014, London, UK
45. Keynote lecture: NowNano Conference and Workshop, Manchester, UK June 2014
44. Invited Lecture: Responsive Materials for Biological Applications Workshop, Leuven, Belgium, March 2014
43. Invited lecture: Gene therapy to Central Nervous System Conference, Cancun, Mexico, February 2014
42. Invited lecture: 12th Int. Conference on Polymers for Advanced Technologies, Sept-Oct 2013, Berlin, Germany
41. Invited lecture: 2nd Precision Polymer Materials (P2M) conference, August 2013, Ghent, Belgium
40. Keynote lecture: Novartis Workshop on Intracellular Delivery, September 2013, Basel, Switzerland
39. Invited lecture: The 20th International Conference on Medical Physics and Biomedical engineering, Sept 2013, Brighton, UK
38. Keynote lecture: RE.WORK Technology Summit, September 2013, London, UK
37. Invited lecture: The BBB symposium, Kings' College, April 2013, London, UK
36. Invited lecture: Crick Symposium: Engineering and Exploring the Cell-Material Interface, June 2013, London, UK
35. Invited lecture: American Chemical Society National Meeting, April 2013, New Orleans, USA
34. Invited lecture: Delft Discussions on Soft Matter Science and Technology, January 2013, Delft, Netherlands
33. Invited lecture: 2nd UK-Korea Int. Symp. on Nanomedicine and Molecular Imaging, November 2012, London, UK
32. Invited lecture: Physics in Healthcare, November 2012, London, UK
31. Invited lecture: The British Society for Nanomedicine - October 2012, Liverpool, UK
30. Invited lecture: XI International Conference on Nanostructured Materials, August 2012 Rhodes Islands, Greece
29. Invited lecture: Biological & Pharmaceutical Complex Fluids, July 2012, Tomar, Portugal
28. Keynote lecture: IUPAC World Polymer Congress, June 2012
27. Invited lecture: The German Physics Society Annual Meeting, Berlin, Germany, March 2012
26. Invited lecture: Nano Enhancers for Plastics Conference, Brussels, March 2012
25. Invited lecture: UNESCO International Course on Bionanomaterials, La Havana, Cuba, March 2012

24. Invited lecture: NanoKTN's Healthcare & Life Sciences Miniaturization for Healthcare, Nov 2011, London, UK
23. Invited lecture: ESF "Precision Polymer Materials" 1st annual meeting, December 2011, Obernai, France
22. Invited lecture: Indo-UK Seminar on INNOVATIVE MEDICINES, Nov. 2011, India
21. Award lecture: UK Pharm-Sci 2011 (Academy of Pharmaceutical Sciences) Nottingham, UK Sept 2011
20. Invited lecture: European Polymer Congress 2011, Jun, 2011, Granada, Spain
19. Award lecture: American Physical Society Annual Meeting, March 2011, Dallas, USA
18. Invited lecture: Macromol. Materials Gordon Research Conference Jan 2011, Ventura, USA;
17. Plenary lecture: 21st Int. Symposium on Amyotrophic lateral sclerosis (ALS)/Motor neurone diseases (MND) Dec 2010, Orlando, USA
16. Keynote lecture: ESF-UB Conference in Biomedicine Nanomedicine, Oct 2010, Sant Feliu de Guixols, Spain
15. Invited lecture: UK Pharm-Sci 2010 (Academy of Pharmaceutical Sciences) Nottingham, UK Sept 2010
14. Invited lecture: 10th Int. Conference on Nanostructured Materials NANO-2010, Sept 2010 Rome, Italy
13. Invited lecture: 8th Int. Symposium on Polymer Therapeutics, May- 2010, Valencia, Spain
12. Keynote lecture: 5th Annual Drug Delivery Systems Conference, Feb- 2010, London, UK
11. Invited lecture: Cross disciplinary and new approaches to cardiovascular research Workshop, Sheffield, UK -November 2009;
10. Invited lecture: Nanotechnology and Medical Devices Jul 2009: Sheffield, UK;
9. Keynote lecture: Drug Delivery to the Lungs"19th Conference Dec 2008, Edinburg, UK
8. Invited lecture: 5th UK Spinal Muscular Atrophy Research Meeting, Nov 2008, Sheffield, UK
7. Invited lecture: POLYDAYS 2008 Active and Adaptive Polymeric Materials, Oct 2008, Berlin, Germany
6. Invited lecture: FSTG-New Directions in Complex Delivery, Nov 2007, Sheffield, UK
5. Invited lecture: Nano & Medical technologies, Apr 2008, Sheffield, UK
4. Invited lecture: IOM3 White Rose Nanomaterials and Nanotechnology Workshop, Jul 2007, Sheffield, UK
3. Invited lecture: 5th Conf. The UK Society for Biomaterials, Jun 2007, Manchester, UK
2. Invited lecture: The IRC Polymer Showcase, Sept 2006, Wakefield, UK
1. Invited lecture: FaraPack Briefing, Apr 2004 York, UK

Seminars

94. Roche Neuroscience Division Seminar Series- Virtual Seminar, October 2021
93. Harvard University Bioengineering Seminar Series- Virtual Seminar, July 2021
92. Association of Pharmaceutical Science, Crossing Biological Barriers with Nanomedicines- Virtual Seminar, April 2021
91. VIRTUAL Workshop on "Bioinspiration and Biomimetics in the Design of Novel Therapeutic Approaches series, October, 2020
90. Institute for Bioengineering of Catalunya, Barcelona, Spain, May, 2020
89. CRUK City of London Cancer Institute, May 2020, London, UK
88. Department of Chemistry, Warwick University , March 2020, Coventry, UK
87. Huaxi Hospital, Sichuan University , December 2019, Chengdu, China
86. Institute of Structural and Molecular Biology, UCL/Birbeck, November 2019, London, UK
85. Max Planck Institute for Biophysics, October 2019, Frankfurt,
84. Koch Institute Integrative Cancer Research, MIT, August 2019, Boston, USA
83. Department of Physics, Harvard University, August 2019, Boston, USA
82. Children Hospital Sa João de Deu Department of Neuro-oncology, July 2019, Barcelona, Spain
81. Institute for Molecular Science and Engineering Imperial College London, May 2019, London,
80. School of Chemistry, Sichuan University, April 2019, Chengdu, China
79. Children with Cancer UK, March 2019 London Uk
78. Italian Institute of Technology, Genoa, Italy, Jan 2019
77. School of Pharmacy, University of Cardiff, UK, Nov 2018
76. Institute of Flexible Electronics, Northwestern Polytechnical University China, Sept 2018
75. Institute of Advanced Materials, Nanjing Tech University, China Sept 2018
74. Department of Bioengineering, Imperial College London, London, UK, June 2017
73. Department of Physics, King's College London, London, UK, March 2017
72. UCB-Pharma, Slough, UK, October 2017
71. School of Material Science, Tongji University, Shanghai, China, September 2017
70. School of Pharmaceutical Science, University of Southwest China, Chongqing, China, September 2017
69. School of Chemistry and Chemical Engineering, Anhui University, Hefei, China, September 2017,
68. Institute of Physics, Chinese Academy of Science, Beijing, China, September 2017
67. MedImmune, Cambridge, UK, August, 2017

66. Max Plack Institute for Polymer Research, Mainz, Germany, August, 2017
65. Institute for Research in Biomedicine, Barcelona, Spain, March, 2017
64. School of Physical and Mathematical Science, Lincoln University, UK, March, 2017
63. Institute for Bioengineering of Catalunya, Barcelona, Spain, February, 2017
62. Centro de Investigación Principe Felipe, Valencia, Spain, October 2016
61. Centro de Investigación Cooperativa en Biomateriales CIC biomaGUNE, San Sebastain, Spain, September 2016
60. Department of Bioengineering, Southampton University, Southampton, UK, July 2016
59. Department of Chemical Engineering, NewCastle University, New Castle, UK, May 2016
58. Department of Chemistry, Warwick University, Coventry, UK, January 2016
57. UCL/CRUK Cancer Institute, November 2015, London, UK
56. Department of Chemistry, Anhui University, Hefei, China, June 2015
55. Department of Material Science, University of Science and Technology of China, Hefei, China, June 2015
54. William Harvey Research Institute Barts and The London School of Medicine and Dentistry. (May 2015)
53. Department of Pharmacy and Chemistry, University of Sassari, Sassari, Italy, (April 2015)
52. MRC Laboratory for Molecular and Cellular Biology, UCL, London (December 2014)
51. RSC Thomas Graham Lecture, London (November 2014)
50. Adocia Biotech, Lyon, (July 2014)
49. Institute of Pharmaceutical Science, Kings College London, London (March 2014)
48. Department of Chemistry, University of Reading, Reading, (January 2014)
47. Institute of Bioengineering, Queen Mary College London, London (January 2014)
46. Institute for Biomedical Engineering, University of Oxford, Oxford (December 2013)
45. Institute of Complex Molecular Systems TU Eindhoven, The Netherlands, (November 2013)
44. Division of Infection and Immunity, University College London, London (November 2013)
43. European Nanomedicine Summer School, Zagreb, Croatia, (July 2013)
42. Nanodrug ITN, Cranfield University, UK (April 2013)
41. Cavendish Labs, Dept of Physics, University of Cambridge (January 2013)
40. Winter School "Tissue Engineering and Nanomedicine" organized by Scuola Interpolitecnica di Dottorato. Bari, Italy (December 2012)
39. Dept. of Chemistry, Univerisity of Bristol, Bristol, UK, (November 2012)
38. Dept of Biomedical Engineering, University of Glasgow, Glasgow (October 2012)

37. Dept. of Chemistry, University of Strathclyde, Glasgow.(October 2012)
36. Leibniz Institute of Polymer Research Dresden, Dresden, Germany (July 2012)
35. Department of Nanomedicine, The Methodist Hospital Research Institute, Houston, USA (June 2012)
34. Medicines and Healthcare Regulatory Agency, London, (June 2012)
33. Brain Repair Institute, The University of Cambridge, Cambridge (May 2012)
32. The Centre for Liver research, University of Birmingham (April 2012)
31. Dept. of Chemistry, University College London (March 2012)
30. Dept. of Chemistry, The University of Sheffield, (February 2012)
29. GlaxoSmithKline, Ware, UK (December 2011)
28. Molecular and Nanoscale Physics Group, Dept. of Physics, University of Leeds (November 2011)
27. Adolphe Merkle Institute, University of Fribourg, Switzerland (October 2011)
26. Italian Institute of Technology, Lecce, Italy (October, 2011)
25. US Army Research Laboratories, Aberdeen Maryland, USA (June 2011)
24. School of Engineering and Applied Science. -University of Pennsylvania, Philadelphia, USA (June 2011)
23. Dept. of Chem. Eng. -University of Delaware, Newark, USA (June 2011)
22. Dept. of Polymer Sci. Eng. -University of Massachusetts, Amherst, USA (June 2011)
21. Novartis Pharmaceuticals UK Ltd, Horsham, UK (March 2011)
20. Dept. of Physics - University of Oxford, UK (Feb 2011)
19. Centre for Molecular Nanoscience -University of Leeds, UK (Dec 2010)
18. Nijmegen Centre for Molecular Life Sciences -Radboud University, Nijmegen, The Netherlands, (Nov 2010)
17. Institute for Research in Biomedicine -University of Barcelona, Barcelona, Spain (Oct 2010)
16. Merck-Serono, Rome, Italy (Sept 2010)
15. Dept. of Biomedical Science -University of Sheffield (May 2010)
14. Dept. of Chemistry - University of Bordeaux 1, Bordeaux, France (Jan 2010)
13. School of Pharmacy -Queen's University Belfast, Belfast, UK (May 2009)
12. Centre of Biomedical Sciences, University of Nottingham, UK (Jan 2009)
11. Institute of Medical Science, University of Aberdeen, UK (Nov 2008)
10. School of Pharmacy, Manchester University, UK (Oct 2008)
9. Dept. of Physics, Surrey University, UK (Oct 2008)

8. Dept. of Bioengineering, University California, San Diego, USA (Sept 2008)
7. Dept. of Neuroscience, University of Sheffield, UK (Jun 2008)
6. Dept. of Oncology University of Sheffield, UK (Feb 2008)
5. Dept. of Pharmaceutical Science, University of Gent, Belgium (Sept 2007)
4. Dept. of Materials Science and Engineering, University of Sheffield (Sept 2007)
3. The Centre of Self Organising Materials, -University of Leeds (Dec 2006)
2. School of Pharmacy, University of Nottingham (Oct 2006)
1. Polymer Physics Group, Dept. of Physics, University of Leeds (Jun 2006)

Outreach activities

2020	Keynote lecture at the Young Scientist Journal Annual Conference, Sept. 2020
2019	Pint of Science London
2015	Origins of life Royal Society Summer Science Exhibition 2015
2014	Fjord Kitchen Event Madrid
2013	RE.WORK Technology Summit, London
2013	TEDxSheffield
2012	"Medicine at the Nanoscale" Public event organised by the Battaglia Research Group

8 Research

Research synopsis

We are interested in how molecules, macromolecules, viruses, vesicles, and whole cells traffic across our body barriers. We combine novel microscopic tools with theoretical and computational physics to study biological transport from the single molecules, cell membrane, to the whole organism. We thus translate the acquired knowledge to bioengineer novel nanomedicines, combining soft matter physics with synthetic chemistry. Here, we design bionic units that mimic specific biological functions and introduce operations that do not exist in nature. We apply a constructionist approach where we mimic biological complexity in the form of design principles to produce functional units from simple building blocks and their interactions. We call such an effort, **Molecular Bionics**, and it involves inputs from physical science and engineering from one side and biomedical sciences.

Research recognitions

2008-2011	14 Journal Covers: 2 on Nature Mater. (Issue 4 2005 and Issue 8 2009), and 1 on: Nano Today (Issue 3 2008), Macromol. Rap. Comm. (Issue 23 2008), J. Mater. Chem. (Issue 19, 2009), Langmuir (May issue, 2010), Eur. Phys. J. E (Issue 3, 2011), J. Am. Chem. Soc. (Issue 41, 2011) , Chem Soc Rev (2012 Issue 41) , ChemPhysChem (Issue 16, 2018), Chemistry: an Asian Journal (2019, Issue 4,), ACS Nano (2020 Issue14) , EBioMedicine (2020 volume 58) on Adv. Mater (2020 Issue 39)
2007-2013	Research selected as cutting edge example for the exposition " <i>Plasticity - 100 years of making plastics</i> " London Science Museum (reported on The Times -May 19, 2007)

Publications

From [Google Scholar](#) :

H-Index: 54; **H-Index age normalised:** 3.375; **i-10 index:** 103; **i-100 index:** 33. **Note:** *Senior author, Conference papers are not listed

Peer-reviewed Journals

134. D. M. Leite, M Seifi, L. Ruiz-Perez, F. Nguemo, M. Plomann, J. D. Swinny, G. Battaglia* The role of syndapin-2 mediated transcytosis across the blood-brain barrier on amyloid- β accumulation in the brain **Brain Comm.** 2021 in the press (preprint bioRxiv 10.1101/2020.07.12.199869)
133. V. M. Gouveia, L. Rizzello, B. Vidal, C. Nunes, A. Poma, C. Lopez-Vasquez, E. Scarpa, S. Brander, A. Oliveira, J. E. Fonseca, S. Reis, G. Battaglia* Targeting activated macrophages intracellular milieu to augment anti-inflammatory drug potency **Adv. Therap.** 2021 in the press (preprint bioRxiv 10.1101/2021.06.22.449368)
132. A. Duro-Castano*, L. Rodriguez-Arco, L. Ruiz-Perez, C. De Pace, G. Marchello, C. Noble-Jesus, G. Battaglia* One-pot synthesis of oxidation-sensitive supramolecular gels and vesicles **Biomacromolecules** 2021, 22, 12, 5052-5064
131. G. Pepe, C. Sfogliarini, L. Rizzello, G. Battaglia, C. Pinna, G. Rovati, P. Ciana, E. Brunialti, F. Mornata, A. Maggi, M. Locati, E. Vegeto* ER α -independent NRF2-mediated immunoregulatory activity of tamoxifen **Biomed. & Pharmacother.**, 2021, 144, 112274
130. C. Noble Jesus, R. Evans, J. Forth, C. Estarellas, F. L. Gervasio*, G. Battaglia* Amphiphilic Histidine-Based Oligopeptides Exhibit pH-Reversible Fibril Formation **ACS Macro Letters**, 2021, 10, 984-989
129. D. M. Leite, D. Matias and G. Battaglia* The Role of BAR Proteins and the Glycocalyx in Brain Endothelium Transcytosis **Cells** 2020, 9(12), 2685
128. B. Sola-Barrado, D. M. Leite, E. Scarpa, A. Duro-Castano, G Battaglia Combinatorial Intracellular Delivery Screening of Anticancer Drugs **Mol. Pharmac.**, 2020, 17 (12), 4709-4714
127. X. Tian, D. Moreira-Leite, E. Scarpa, S. Nyberg, G. Fullstone, J. Forth, D. Lourenco-Matias, A. Apriceno, A. Poma, A. Duro-Castano, M. Vuyyuru, L. Harker-Kirschneck, A. Saric, Z. Zhang, P. Xiang, B. Fang, Y. Tian, L. Luo, L. Rizzello, G. Battaglia* On the shuttling across the blood-brain barrier via tubules formation: mechanism and cargo avidity bias **Science Adv.** 2020, 6 (48), eabc4397
126. E. Scarpa ,C. De Pace ,A. S. Joseph,S. Campos de Souza,A. Poma,E. Liatsi-Douvitsa,C. Conti,V. De Matteis, J. Samitier Martí,G. Battaglia ,L. Rizzello Tuning cell behavior with nanoparticle shape **PLoS ONE** 2020 15(11): e0240197
125. A. Duro-Castano D. Moreira-Leite, J. Forth, Y. Deng D. Matias , C. Noble-Jesus G. Battaglia* Designing peptide nanoparticles for efficient brain delivery **Adv. Drug Deliv. Rev.** 2020, 160, 52-77
124. C. Z. Bueno, A. C. Apolinário, A. Duro-Castano, A. Poma, A. Pessoa Jr,C. O Rangel-Yagui*, G. Battaglia* L-Asparaginase Encapsulation into Asymmetric Permeable Polymersomes **ACS Macro Lett.** 2020, 9, 1471-1477
123. C De Pace, G Marchello, L Ruiz-Perez*, G Battaglia* Brownian Tomography of Biomolecules and Soft Polymer Assemblies **Microsc. Microanal.**, 2020, 1-3

122. I. Williams*, S. Lee, A. Apriceno, R. P. Sear, G. Battaglia* Diffusioosmotic and convective flows induced by a non-electrolyte concentration gradient **Proc. Natl. Acad. Sci. USA** 2020, 17, 25263-25271
121. M. Liu, A. Apriceno, M. Sipin, E. Scarpa, L. Rodriguez-Arco, A. Poma, G. Marchello, G. Battaglia*, S. Angioletti-Uberti* Combinatorial entropy behaviour leads to range selective binding in ligand and receptor interactions **Nature Comm.** 2020 11, 4836
120. X Tian, C. De Pace, L. Ruiz-Perez, D. Chen, R. Su, M. Zhang, R. Zhang, Q. Zhang, Q. Wang, H. Zhou, J. Wu, Z. Zhang*, Y. Tian*, and G. Battaglia* A Cyclometalated Iridium (III) Complex as a Microtubule Probe for Correlative Super-Resolution Fluorescence and Electron Microscopy **Adv. Mater.**, 2020, 32, 2003901 (back cover article)
119. A. Kocere, J. Resseguier, J. Wohlmann, F. Miltzow, S. S. Khan, M. Speth, N-J. Knudsen Dal, M. Y. W. Ng, N. Alonso-Rodriguez, E. Scarpa, L. Rizzello, G. Battaglia, G. Griffiths, F. Fenaroli*, Real-time imaging of polymersome nanoparticles in zebrafish embryos engrafted with melanoma cancer cells: localization, toxicity and treatment analysis. **EBioMedicine** 2020, 58, 102902 (front cover article)
118. F. Fenaroli, J. D. Robertson, V. Gouveia, C. Di Guglielmo, C. De Pace, E. Scarpa, P. M. Elks, D. Evangelopoulos, J. Ortiz Canseco, S. Yona, H. M. Marriott, D. H. Dockrell, S. Foster, T. McHugh, S. A. Renshaw, J. Samitier, G. Battaglia* and L. Rizzello* Polymersomes Eradicating Intracellular Bacteria **ACS Nano** 2020, 14, 7, 8287-8298 (front cover article)
117. L. Ruiz-Pérez, L. Rizzello, J. Wang, N. Li, G. Battaglia* and Y. Pei * Polypyrrole and polyaniline nanocomposites with high photothermal conversion efficiency **Soft Matter** 2020, 6, 4569-4573
116. G. Marchello, C. De Pace, N. Wilkinson, A. Duro-Castano, G. Battaglia, L. Ruiz-Perez*, End-to-end image analysis pipeline for liquid-phase electron microscopy **J. Microscopy** 2020, 279, 139-281
115. U. C. Oz, Z. B. Bolat, A. Poma, L. Guan, D. Telci, F. Sahin, G. Battaglia*, and A. Bozkır* Prostate cancer cell-specific BikDDA delivery by targeted polymersomes **Appl. Nanosci** 2020, 10, 3389-3401
114. E. S. Kim, D. Kim, S. Nyberg, A. Poma, D. Cecchin, S. Jain, K. A. Kim, Y. J. Shin, E. H. Kim, M. Kim, S. H. Baek, J. K. Kim, T. Doeppner, A. Ali, J. Redgrave, G. Battaglia*, O. N. Bae*, A. Majid*. LRP-1 functionalized polymersomes enhance the efficacy of carnosine in experimental stroke **Sci. Reports** 2020, 10(1), 699.
113. X. Tian, S. Angioletti-Uberti, G. Battaglia* On the design of precision nanomedicines. **Science Adv.** 2020, 6, 4, eaat0919
112. L. Luo, F. Xu, H. Peng, Y. Luo, X. Tian, G. Battaglia, H. Zhang, Q. Gong, Z. Gu, K. Luo* Stimuli-responsive polymeric prodrug-based nanomedicine delivering nifuroxazide and doxorubicin against primary breast cancer and pulmonary metastasis **J. Control. Release** 2020, 318, 124-135
111. J. L. Donnelly, D. Offenbartl-Stiegert, J. M. Marín-Beloqui, L. Rizzello, G. Battaglia, T. M. Clarke, S. Howorka, and J. D. Wilden* Exploring the Relationship between BODIPY Structure and Spectroscopic Properties to Design Fluorophores for Bioimaging **Chem. Eur. J.** 2020, 26, 4, 863-872
110. V. M. Gouveia, L. Rizzello, C. Nunes, A. Poma, L. Ruiz-Perez, A. Oliveira, S. Reis*, and G. Battaglia* Macrophage Targeting pH Responsive Polymersomes for Glucocorticoid Therapy **Pharmaceutics** 2019, 11(11), 614

109. Y. Zhu, M. Zhang, L. Luo, M. R. Gill4, C. De Pace, G. Battaglia, Q. Zhang, H. Zhou, J. Wu, Y. Tian and X. Tian NF- κ B hijacking theranostic Pt(II) complex in cancer therapy **Theranostics**, 2019, 9, 2158-2166.
108. YZhu, A. Poma, L.Rizzello, V. Gouveia, L. Ruiz-Perez, G. Battaglia*, and C. K. Williams* Metabolic active fully hydrolysable polymersomes **Angew. Chem. Int. Ed.** 2019, 8, 4581 –4586
107. X Tian, S Hussain, C de Pace, L Ruiz-Perez, G Battaglia Zn^{II} Complexes for Bioimaging and Correlated Applications **Chemistry- Asian J.** 2019,14, 509-526
106. L Luo, Q Zhang, Y Luo, Z He, X Tian*, G Battaglia* Thermosensitive nanocomposite gel for intra-tumoral two-photon photodynamic therapy **J. Control. Release**, 2019, 298, 99-109
105. L Rodriguez-Arco, A Poma, L Ruiz-Perez, E Scarpa, K Ngamkham, and G. Battaglia* Molecular bionics-engineering biomaterials at the molecular level using biological principles **Biomaterials** 2019, 192, 26-50
104. C. Contini, R. Pearson, L. Wang, L. Messenger, J. Gaitzsch, L. Rizzello, L. Ruiz-Pérez, and G. Battaglia* Bottom-up Evolution from Disks to High-Genus Polymersomes **iScience**. 2018. 7, 132-144
103. X. Tian*, T. Liu, B. Fang, A. Wang, M. Zhang, S. Hussain, L. Luo, R. Zhang, Q. Zhang, J. Wu, G. Battaglia, L. Li, Z. Zhang, Y. Tian* A NeuN specific fluorescent probe revealing neuronal nuclei protein and nuclear acids association in living neurons under STED nanoscopy **ACS Appl. Mater. Interfaces**, 2018, 10 (38), 31959-31964
102. L Ruiz-Pérez*, C Hurley, S Tomás, G Battaglia Separating extreme pH gradients using amphiphilic copolymer membranes. **ChemPhysChem** 2018, 19, (16), 1987 – 1989 (Front cover article)
101. A. Poma, Y. Pei, L. Rizzello, L. Ruiz-Perez, and G. Battaglia* "Polymersomes synthesis and applications" in **"Encycl. Polymer Sci. Tech."** 2018, <https://doi.org/10.1002/0471440264.pst665>
100. A. Joseph, C. Contini, D. Cecchin, S. Nyberg, L. Ruiz-Perez, J. Gaitzsch, Gavin Fullstone, J. Azizi, J. Preston, G. Volpe, G. Battaglia* Chemotactic synthetic vesicles: design and applications in blood brain barrier crossing **Science Adv.**, 2017, 3, 8, e1700362 (Reported by ORF-Science, C&Eng News, Phys.org, The Scientist)
99. E. Ellis, K. Zhang, Q. Lin, E. Ye, A. Poma, G. Battaglia, X. J. Loh and T. C. Lee* Biocompatible pH-responsive nanoparticles with a core-anchored multilayer shell of triblock copolymers for enhanced cancer therapy **J. Mater. Chem. B**, 2017, 5, 4421-4425
98. J. Robertsons, G. Battaglia*, and S. Renshaw* Targeting Neutrophilic Inflammation using Polymersome Mediated Cellular Delivery **J. Immunol.**, 2017, 1601901
97. X. Tian*, Y. Zhu, M. Zhang, L. Luo, J. Wu, H. Zhou, L. Guan, G. Battaglia, Y. Tian* A Nuclear Targeting Two-Photon Absorption Iridium Complex Induced Dual-damage in Photon Dynamic Therapy: Localization Matters **Chem. Comm.**, 2017, 53, 3303-3306
96. L. Chierico, L.Rizzello*, L. Guan, A. Joseph, A. Lewis and G. Battaglia* The role of the two splice variants and extranuclear pathway on Ki-67 regulation in non-cancer and cancer cells **PLoS One**, 2017, 12(2): e0171815
95. X. Tian*, O. Brooks, G. Battaglia* Pericytes from mesenchymal stem cells to model for the blood-brain barrier **Sci. Rep.**, 2017, 7, 39676

94. G. Yilmaz, L. Messenger, A. S. Gleinich, D. Mitchell, G. Battaglia, R. Becer* Glyconanoparticles with Controlled Morphologies and Their Interactions with a Dendritic Cell Lectin **Polym. Chem.**, 2016, 7, 6293-6296
93. C. Fetsch, J. Gaitzsch, L. Messenger, G. Battaglia, and R. Luxenhofer* "Self-Assembly of Amphiphilic Block Copolypeptoids for Drug Delivery Carriers - Micelles, Worms and Polymerosomes" **Sci. Rep.**, 2016, 6, 33491
92. G. Fullstone*, S. Nyberg*, X. Tian, G. Battaglia From the Blood to the Central Nervous System: A Nanoparticle's Journey Through the Blood-Brain Barrier by Transcytosis **Int. Rev. Neurobiol.**, 2016, 130, 41-72
91. L. Messenger, J. Kim, J. Burns, D. Cecchin, J. Hindley, J. Gaitzsch, G. Battaglia*, S. Howorka* Biomimetic nanoreactors composed of polymersomes, membrane spanning DNA nanopores, and encapsulated enzymes **Angew. Chem. Int. Ed**, 2016, 37, 11272-11275
90. L. Simón-Gracia, H. Hunt, P. Scodeller, J. Gaitzsch, V. R. Kotamraju, K. N. Sugahara, O. Tammik, E. Ruoslahti, G. Battaglia*, and T. Teesalu* "iRGD peptide conjugation potentiates intraperitoneal tumor delivery of paclitaxel with polymersomes" **Biomaterials** 2016, 104, 247-257
89. J. E. Bartenstein, J. Robertson, G. Battaglia, W. H. Briscoe Stability of polymersomes prepared by size exclusion chromatography and extrusion **Colloids Surf., A**, 2016, 506, 739-746
88. G. Yealland, G. Battaglia, O. Bandmann, and H. Mortiboys* Rescue of mitochondrial function in parkin-mutant Fibroblasts using drug loaded PMPC-PDPA polymersomes and tubular polymersomes **Neurosci. Lett.** 2016, : S0304-3940(16)30474-8.
87. L. Rizzello*, J. Robertson , M.M. Avila-Olias , J. Gaitzsch , C. Contini , M. Magon , S. Renshaw , G. Battaglia* Purification of Nanoparticles by Size and Shape **Sci. Rep.**, 2016, 6, 27494
86. L. Simón-Gracia, H. Hunt, P. Scodeller, J. Gaitzsch, G. B. Braun, A. A. Willmore, E. Ruoslahti, G. Battaglia*, and T. Teesalu* Paclitaxel-loaded Polymersomes for Enhanced Intraperitoneal Chemotherapy **Mol. Cancer Ther.** 2016, 15 (4), 670-679
85. J. Gaitzsch*, M. Delahaye, A. Poma, F. Du Prez and G. Battaglia Comparison of metal free polymer-dye conjugation strategies in protic solvents **Polymer Chem.** 2016 , 7, 3046 - 3055
84. M. G. Walker, P. J. Jarman, M. R. Gill, X. Tian, H. Ahmad, P. A. N. Reddy, L. McKenzie, J. A. Weinstein, A. J. H. M. Meijer, G. Battaglia, C. G. W. Smythe,* and J. A. Thomas* A Self-Assembled Metallomacrocyclic Singlet Oxygen Sensitizer for Photodynamic Therapy **Chem. Eur. J.** 2016, 22, 5996-6000
83. L. Ruiz Perez, L. Messenger, J. Gaitzsch, A. Joseph, L. Sutto, F. L. Gervasio and G. Battaglia* Molecular engineering of polymersome surface topology **Science Adv.** 2016, e1500948
82. J. Gaitzsch*, V. Chudasama*, E. Morecroft, L. Messenger, G. Battaglia Synthesis of an Amphiphilic Miktoarm Star Terpolymer for Self-Assembly into Patchy Polymersomes **ACS Macro Lett.** 2016, 5, 351-354
81. J. Gaitzsch*, K. Keru, G. Battaglia Peptidosomes as nanoparticles from amphiphilic block alpha-peptoids using solid-phase-synthesis **Eur. Polym. J.**, 2015, 73, 447-454.
80. J. Bain, L. Ruiz-Pérez, A. J. Kennerley, S. P. Muench, R. Thompson, G. Battaglia, S. S. Staniland* In situ formation of magnetopolymersomes via electroporation for MRI **Sci. Rep.** 2015, 5, 14311
79. L. Guan, L. Rizzello, and G. Battaglia* Polymersomes and their applications in cancer delivery and therapy **Nanomedicine** 2015, 10, 2757-2780

78. X. Tian, S. Nyberg, P. Sharp, J. Madsen, N. Daneshpour, S. P. Armes, J. Berwick, M. Azzouz, P. Shaw, N. J. Abbott and G. Battaglia* LRP1-mediated intracellular antibody delivery to the Central Nervous System **Sci. Rep.** 2015, 5, 11990
77. G. Fullstone, J. Wood, M. Holcombe and G. Battaglia* Modelling the Transport of Nanoparticles under Blood Flow using an Agent-based Approach **Sci. Rep.** 2015, 5, 10649
76. P. Viswanathan, M. Ondeck, S. Chirasatitsin, K. Nghanmham, D. Cecchin, G. C. Reilly, A. J. Engler* and G. Battaglia* 3D Surface Topology Guides Stem Cell Adhesion and Differentiation **Biomaterials** 2015, 52, 140-147
75. L. Ruiz-Perez, J. Madsen, E. Themistou, J. Gaitzsch, L. Messenger, S. Armes and G. Battaglia* Nanoscale detection of metal -labeled copolymers in patchy polymersomes **Polymer Chem.** 2015, 6, 2065-2068
74. P. Viswanathan, E. Themistou, K. Ngamkham, G. Reilly, S. Armes, G. Battaglia* Controlling Surface Topology and Functionality of Electrospun Fibers using Amphiphilic Block Copolymers to Direct Mesenchymal Progenitor Cell Adhesion **Biomacromolecules** 2015, 16(1):66-75
73. P. Viswanathan, D. Johnson, C. Hurley, N. Cameron and G. Battaglia* 3D Surface Functionalization of Emulsion-templated Polymeric Foams **Macromolecules** 2014, 47, 7091-7098
72. L. Messenger, J. Gaitzsch, L. Chierico and G. Battaglia* Novel Aspects of Encapsulation and Delivery Using Polymersomes **Curr. Opin. Pharmacol.** 2014, 18, 104-111
71. L. Chierico, A. S. Joseph, A. L. Lewis and G. Battaglia* Live cell imaging of cytoskeleton interactions and membrane topology **Sci. Rep.** 2014, 4, 6056
70. D. Cecchin, R. de la Rica, R. E. S. Bain, M. W. Finnis, M. M. Stevens, G. Battaglia* "Plasmonic ELISA for the detection of gp120 at ultralow concentrations with the naked eye" **Nanoscale** 2014, 6, 9559-9562
69. J. D Robertson, G. Yealland, M. Avila-Olias, L. Chierico, O. Bandman, S. A Renshaw, G. Battaglia* pH sensitive tubular polymersomes: formation and applications in cellular delivery **ACS Nano**, 2014, 8, 4650-4661
68. C. Rodenburg*, P. Viswanathan, M. A. E Jepson, X. Xiong, H. Jacksch, G. Battaglia Helium Ion Microscopy based wall thickness and surface roughness analysis of polymer foams obtained from high internal phase emulsion **Ultramicroscopy**, 2014, 139:13-9
67. C. Pegoraro, D. Cecchin, J. Madsen, N. Warren, S. P. Armes, S. MacNeil, A. Lewis, G. Battaglia* Translocation of flexible polymersomes across pores at the nanoscale **Biomater. Sci.** 2014, 2, 680-692
66. H. Colley, V. Hearnden, M. Avila-Olias, D. Cecchin, I. Canton, J. Madsen, N. Warren, S. Armes, S. MacNeil, Sheila, K. Hu, J. McKeating, C. Murdoch M. Thornhill, and , G. Battaglia*, "Polymersome-mediated delivery of combination anti-cancer therapy to head and neck cancer cells: 2D and 3D in vitro evaluation" **Mol. Pharmac.** 2014, 11 (4), 1176-1188
65. E. Themistou*, G. Battaglia, S.P. Armes* Facile Synthesis of Thiol-Functionalized Amphiphilic Poly(lactide-Methacrylic Diblock Copolymers **Polymer Chem.** 2014,5, 1405-1417
64. M. R. Gill, D. Cecchin, M. G. Walker, R. S. Mulla, G. Battaglia*, C. Smythe*, J. Thomas* Targeting the endoplasmic reticulum with a membrane -interactive luminescent ruthenium (II) polypyridyl complex **Chem. Sci.**, 2013, 4, 4512-4519
63. A. Akinc* and G. Battaglia* Exploiting endocytosis for nanomedicines. **Cold Spring Harbor Perspectives in Biology**, 2013, 5 (11), a016980

62. K. Wayakanon, M. H Thornhill, I. Douglas, N.J. Warren, S. P. Armes, G. Battaglia* and C. Murdoch* Polymersome mediated intracellular delivery of antibiotics to treat *Porphyromonas gingivalis*-infected oral epithelial cells **FASEB J.**, 2013 ,11, 4455-65
61. R. T. Pearson, M. Avila-Olias, A. S. Joseph ,S. Nyberg, and G. Battaglia*. Smart polymersomes: Formation, characterisation and applications. **RSC Smart Mater.** 2013, 1 (1), 179-207.
60. J. Madsen, I. Canton, N. Warren, E. Themistou, A. Blanazs, B. Ustbas, X. Tian, R. Pearson, G. Battaglia, A. Lewis, S. P. Armes* Nile blue-based nano-sized pH sensors for simultaneous far-red and near-infrared live bioimaging **J. Am. Chem. Soc.** 2013, 135, 14863-14870
59. C. Pegoraro, D. Cecchin, L. Simon-Garcia, N. Warren, J. Madsen, S. P. Armes, A. Lewis, S. MacNeil, G. Battaglia* Enhanced drug delivery to melanoma cells using PMPC-PDPA polymersomes **Cancer Lett.** 2013, 334, 328-37
58. I. Canton and G. Battaglia* Polymersomes-mediated delivery of fluorescent probes for targeted and long term imaging in live cell microscopy **Meth. Mol. Biol.**, 2013, 991:343-51
57. R. Pearson, N. Warren, A. Lewis, S. P. Armes and G. Battaglia*, pH and temperature effect on PMPC - PDPA copolymer self-assembly **Macromolecules**, 2013, 46, 1400-1407
56. I. Canton, M. Massignani, N. Patikarnmonthon, L. Chierico, J. Robertson, S. A. Renshaw, N. J. Warren, J. P. Madsen, S. P. Armes, A. L. Lewis, G. Battaglia* Fully synthetic polymer vesicles for intracellular delivery of antibodies in live cells **FASEB J.** 2013, 1 , 98-108.
55. M. M. Avila-Olias, C. Pegoraro, G. Battaglia and I. Canton* Inspired by nature: Fundamentals in nanotechnology design to overcome biological barriers **Ther. Delivery** 2013, 4, 27-43
54. P. Viswanathan, S. Chirasatitsin, K. Ngamkham, A. Engler, and G. Battaglia*, Cell instructive microporous scaffolds through interface engineering **J. Am. Chem. Soc.** 2012, 134 (49), 20103-20109 (*Highlighted in Nature*, issue 492, p 157, 2012 and in *Nature Methods* issue 10, 111-115 (2013))
53. J. Gaitzsch, I. Canton, D. Appelhans, G. Battaglia*, B. Voit* Cellular interactions with photo cross-linked and pH sensitive polymersomes – biocompatibility and uptake studies **Biomacromolecules** 2012, 13, 4188-4195
52. L. Wang, L. Chierico, D. Little, N. Patikarnmonthon, Z. Yang, M. Azzouz, J. Madsen, S. P. Armes, G. Battaglia* Encapsulation of Biomacromolecules within Polymersomes via Electroporation **Angew. Chem. Int. Ed.** 2012, 51, 11122-11125.
51. J. Rosselgong, A. Blanazs, P. Chambon, M. Williams, M. Semsarilar, J. Madsen, G. Battaglia and S. P. Armes* Thiol-Functionalized Block Copolymer Vesicles **ACS Macro Lett.** 2012, 1, 1041-1045
50. P. Chambon, A. Blanazs, G. Battaglia* and S. Armes* Facile Synthesis of Methacrylic ABC Triblock Copolymer Vesicles by RAFT Aqueous Dispersion Polymerization **Macromolecules** 2012, 45, 5081-5090
49. J. Gaitzsch, D. Appelhans, L. Wang, G. Battaglia*, and B. Voit* Synthetic bionanoreactor: Mechanical and chemical control of polymersome membrane permeability **Angew. Chem. Int. Ed.** 2012, 51, 4448-4451 (*highlighted in Nature Materials* 11, 358(2012) doi:10.1038/nmat3322)
48. I. Canton and G. Battaglia* Endocytosis at the nanoscale **Chem. Soc. Rev.**, 2012, 41, 2718-2739
47. C. Dispenza*, C. LoPresti, M. Sabattino, D. Chmielewska, G. Battaglia, Inherently fluorescent polyaniline nanoparticles in a dynamic landscape **React. Funct. Polym.** 2012,72, 185-197

46. C. Pegoraro, S. MacNeil, G. Battaglia* Transdermal drug delivery: from micro to nano **Nanoscale**, 2012, 4 ,1881-94
45. P. Chambon, A. Blanazs, G. Battaglia*, and S. P. Armes* How Does Crosslinking Affect the Stability of Block Copolymer Vesicles in the Presence of Surfactant? **Langmuir**, 2012, 28, 1196-1205
44. A. Blanazs, J. Madsen, G. Battaglia*, A. J. Ryan* and S. P. Armes* Mechanistic Insights For Block Copolymers Morphologies: How Do Worms Form Vesicles? **J. Am. Chem. Soc.** 2011 133 (41), 16581–16587 (*Front Cover Article*)
43. R. J. Mead, E. Bennet, P. Sharp, A. Kennerly, C. Sunyach, P. Kasher, J. Berwick, B. Pettmann, G. Battaglia, M. Azzouz, A. Grierson, P. J. Shaw Optimisation of pre-clinical pharmacology studies in the SOD1G93A transgenic mouse model of Amyotrophic Lateral Sclerosis (ALS). **PLoS One** 2011 6(8): e23244
42. G. Battaglia*, C. LoPresti, S. Forster M. Massignani, J. Madsen, N. J. Warren, S. P. Armes, C. Vasilev, J. K. Hobbs, S. Chirasatitsin, A. Engler Wet nano-scale imaging and testing of polymersomes **Small** 2011, 7, (14), 2010-2015
41. A. Chaudhuri, G. Battaglia*, R. Golestanian* Effect of interactions on the cellular uptake of nanoparticles **Phys. Biol.** 2011, 8, 046002 (9pp)
40. M. Gill, G. Battaglia, C. Smythe* and J. Thomas* Dual function ruthenium(II) DNA light-switches: cellular imaging and cytotoxicity **ChemBioChem** 2011, 12 (6), 877-880
39. C. LoPresti, M. Massignani, C. Fernyhough, A. Blanazs, A. J. Ryan, J. Madsen, N. J. Warren, S. P. Armes, A. L. Lewis S. Chirasatitsin, A. Engler, G. Battaglia* Controlling polymersomes surface topology at the nanoscale by membrane confined polymer/polymer phase separation **ACS Nano** 2011, 5 (3),1775-1784
38. K. S. Kung, I. Canton, M. Massignani, G. Battaglia*, and A. M. Donald* The development of anisotropic behaviours of 3T3 fibroblasts on microgrooved patterns **Eur. Phys. J. E** 2011, 34(3), 1-9. (*Front cover article*)
37. X. Tian, I. Canton, M. Gill, J. Thomas* and G. Battaglia* Live cell Luminescence Imaging as a Function of Delivery Mechanism **ChemBioChem** 2011, 12 (4), 548-551
36. V. Hearnden, S. MacNeil, G. Battaglia*. Tracking Nanoparticles in Three Dimensional Tissue Engineered Models Using Confocal Laser Scanning Microscopy **Meth. Mol. Biol.** 2011, 695, 41-51
35. C. Dispenza*, M. Ricca, C. LoPresti, G. Battaglia, M. La Valle, D. Giacomazza and D. Bulone E-beam irradiation and UV photocrosslinking of microemulsion laden poly(N-vinyl-2-pyrrolidone) hydrogels for “in situ” encapsulation of volatile hydrophobic compounds **Polym. Chem.** 2011, 2, 192-202
34. M. V. Flores-Merino, S. Chirasatitsin, C. LoPresti, G. C. Reilly, G. Battaglia* and A. J. Engler* Detecting Polymer Nano-domains using Force Spectroscopy Mapping **Soft Matter** 2010, 6, 4466-4470
33. M. Massignani, H. Lomas and G. Battaglia* Polymersomes: synthetic biology for encapsulation and delivery **Adv. Polym. Sci.**, 2010, 229, 115-154,
32. C. Murdoch, K. J. Reeves, V. Hearnden, H. Colley, M. Massignani, I. Canton, J. Madsen, A. Blanazs, S. P. Armes, A. L. Lewis, S. MacNeil, N. J. Brown, M. H. Thornhill and G. Battaglia* Internalization and biodistribution of polymersomes into oral squamous cell carcinoma cells in vitro and in vivo **Nanomedicine** 2010, 5, 1025-1036.

31. L. Brown, S. McArthur, P. C. Wright, and G. Battaglia* Polymersome production on a microfluidic platform using pH sensitive block copolymers **Lab-on-a-Chip**, 2010, 10, 1922 - 1928
30. H. Lomas, J. Du, I. Canton, J. Madsen, N. Warren, S. P. Armes, A. L. Lewis and G. Battaglia*, 'Efficient Encapsulation of Plasmid DNA in pH-Sensitive PMPC-PDPA Polymersomes: Study of the Effect of PDPA Block Length on Copolymer-DNA Binding Affinity' **Macromol. Biosci.**, 2010, 10 (5), 513 - 530
29. T. Smart, A. Ryan, J. Howse, and G. Battaglia*, Homopolymer induced aggregation of polymersomes **Langmuir**, 2010, 26 (10), pp 7425-7430 (*Front cover article*)
28. J. Robertson, N. Pathikamonton, A. Joseph, and G. Battaglia* "Block copolymer vesicles and micelles for drug and gene delivery" in **"Engineering Polymer Systems for Improved Drug Delivery"** R. A. Becker and D. Putman ed. Wiley-vch pub, 2010
27. M. Massignani, I. Canton, T. Sun, V. Hearnden, S. MacNeil, A. Blanazs, S. P. Armes, A. Lewis, and G. Battaglia* Enhanced fluorescence imaging of live cells by effective cytosolic delivery of probes **PLoS One** 2010, 5 (5) e10459
26. C. Picard, V. Hearnden, M. Massignani, G. Battaglia, S. MacNeil, and A. Donald* A perfusion micro incubator for non invasive cell and tissue imaging, **BioTechniques** 2010, 48, 135-138
25. N. Green, Q. Huang, L. Khan, G. Battaglia, B. Corfe, S. MacNeil, and J. Bury* "The Development and Characterisation of a Tissue Engineered Human Oesophageal Model" **Tissue Eng. Part A**. 2010, 16(3),1053-1064.
24. G. Battaglia* "Polymersomes and their Biomedical Applications" in **Nanotechnologies for the Life Sciences** Vol. 10th "Organic Nanomaterials for Life Sciences." C. Kumar ed. Wiley-vch pub, 2010
23. M. R. Gill, J. Garcia-Lara, S. J. Foster, C. Smythe, G. Battaglia* and J. A. Thomas* "A Ruthenium(II) Polypyridyl Complex for Direct Imaging of DNA Structure in Living Cells" **Nature Chem.** 2009, 1, 662 - 667
22. T. Smart, O. Mykhaylyk, A. J. Ryan, and G. Battaglia* Polymersomes hydrophilic corona scaling relations **Soft Matter** 2009, 5, 3607 - 3610
21. A. Blanazs, M. Massignani, G. Battaglia, S. P. Armes* and A. J. Ryan*, Tailoring macromolecular expression at block copolymer vesicle surface **Adv. Funct. Mater.**, 2009, 19 (18), 2906 - 2914
20. M. Massignani, C. LoPresti, A. Blanazs, J. Madsen, S. P. Armes, A. L. Lewis and G. Battaglia*, Controlling cellular uptake by surface chemistry, size and surface topology at the nanoscale **Small**, 2009, 5 (21), 2424 - 2432
19. V. Hearnden, H. Lomas, S. MacNeil, M. Thornhill, C. Murdoch, A. Lewis, J. Madsen, A. Blanazs, S.P. Armes, and G. Battaglia* Diffusion studies of nanometer polymersomes across tissue engineered human oral mucosa **Pharm. Res.** 2009, 26 (7), 1718-1728
18. J.R. Howse, R.A.L. Jones, G. Battaglia, R. Ducker, G. Leggett and A.J. Ryan* Templated Formation of Giant Polymer Vesicles with Controlled Size Distributions, **Nature Mater.** 2009, 8, 507 - 511 (*Front cover article*)
17. C. Lo Presti, M. Massignani, T. Smart, H. Lomas, and G. Battaglia* Polymersomes: nature inspired nanometer sized compartments **J. Mater. Chem.** 2009 19, 3576 - 3590 (*Front cover article*)

16. C. Fernyhough, A. J. Ryan, and G. Battaglia* pH controlled assembly of a polybutadiene-poly(methacrylic acid) copolymer in water: packing considerations and kinetic limitations. **Soft Matter**, 2009, 5, 1674 – 1682
15. C. Lo Presti and G. Battaglia* "Bioinspired polymers" **Encycl. Polymer Sc. Tech.** 2009, (on-line DOI: 10.1002/0471440264.pst566) Wiley and sons editors
14. T. Smart, C. Fernyhough, A. J. Ryan, G. Battaglia* Controlling Fusion and Aggregation in Polymeric Dispersions **Macromol. Rapid Commun.** 2008, 29, 1855-1860 (*Front cover article*)
13. N R Cameron*, S. G. Spain, J. A. Kingham, S. Weck, L. Albertin, C. A. Barker, G. Battaglia, T Smart and A Blanz Synthesis of well-defined glycopolymers and some studies of their aqueous solution behaviour **Faraday Discuss.** 2008, 139, 359-368
12. H. Lomas, M. Massignani, K. A. Abdullah, I. Canton, C. Lo Presti, S. MacNeil, J. Du, A. Blanz, J. Madsen, S. P. Armes, A. L. Lewis, G. Battaglia* Non-cytotoxic polymer vesicles for rapid and efficient intracellular delivery **Faraday Discuss.** 2008, 139, 143 - 159.
11. T. Smart, H. Lomas, M. Massignani, M. V. Flores-Merino, L. Ruiz-Perez, and G. Battaglia* Block Copolymer Nano-structures **NanoToday** 2008, 3, (3-4), 38-46 (*Front cover article*)
10. L. Ruiz-Pérez, A. Pryke, M. Sommer, G. Battaglia, I. Soutar, L. Swanson*, and Mark Geoghegan* The Conformation of poly(methacrylic acid) chains in dilute aqueous solution **Macromolecules** 2008, 41, 2203-2211
9. H. Lomas, I. Canton, S. MacNeil, J. Du, S.P. Armes, A.J. Ryan, A.L. Lewis and G. Battaglia* Biomimetic pH Sensitive Polymersomes for Efficient DNA Encapsulation and Delivery, **Adv. Mater.** 2007, 19, 4238-4243
8. G. Battaglia*, S. Tomas and A.J. Ryan Lamellarsomes: metastable polymeric multilamellar aggregates, **Soft Matter** 2007, 1, 470 - 475
7. G. Battaglia* and A.J. Ryan Pathways of polymeric vesicle formation, **J. Phys. Chem. B** 2006, 110 10272-10279.
6. G. Battaglia*, A.J. Ryan and S. Tomas* Polymeric vesicle permeability: a facile chemical assay, **Langmuir** 22 (2006) 4910-4913
5. G. Battaglia* and A.J. Ryan* Neuron-Like Tubular Membranes Made of Diblock Copolymer Amphiphiles, **Angew. Chem. Int. Ed.** 2006, 45, 2052-2056
4. G. Battaglia* and A.J. Ryan* Effect of amphiphile size on the transformation from a lyotropic gel to a vesicular dispersion, **Macromolecules** 2006, 39, 798-805
3. G. Battaglia and A.J. Ryan* The evolution of vesicles from bulk lamellar gels, **Nature Mater.** 2005, 4, 869-876 (*Front Cover Article*)
2. G. Battaglia and A.J. Ryan* Bilayers and Interdigitation in Block Copolymer Vesicles, **J. Am. Chem. Soc.** 2005, 127, 8757-8764
1. C. Dispenza*, G. Battaglia, G. Giammona, M. Licciardi and G. Spadaro Radiation synthesis of polyaspartamide functionalised hydrogels for sustained release of fragrances, **Colloid Polym. Sci.** 2005, 284, 151-159.

9 Academic supervision

PhD students (19)

2021	Mr Akhil Venugopal (joint with Dr M. Kumar) - Barcelona
2021	Mr Victor Mejias (joint with Dr I. Batalha) - Barcelona
2021	Mr Xie Zhendong - Barcelona
2021	Mr Jose Maria Muñoz López - Barcelona
2021	Mr Gian Marco Tuveri - Barcelona
2021	Ms Barbara Borges - Barcelona
2021	Ms Lara Aiassa - Barcelona
2020	Mr Gabriel Ing (joint with Prof F. Werner) - London/Barcelona
2020	Mr Junyang Chen - London/Barcelona
2020	Ms Jangqi Feng - London/Barcelona
2020	Ms Melis Pisiren - London
2019	Mr Joseph Buckley - London/Barcelona
2019	Ms Maryan Al Ghamdi - London
2018	Mr Miguel Sipin - London
2018	Ms Barbara Ibarzo-Yus - London
2018	Mr Valentino Barberi (joint with Dr G. Volpe) - London
2017	Ms Safa Al Madhi - London
2017	Ms Chiara Cursi - London
2017	Mr Cesare De Pace - London

Support staff (4)

2010	Dr Denis Cecchin - London
2019	Dr Claudia Di Guglielmo - Barcelona
2022	Dr Matilde Ghibaldi - Barcelona
2022	Mr Peter Pfeiffer - Barcelona

Senior research fellows (6)

2016	Dr Lorena Ruiz Perez - Barcelona
2018	Dr Joe Forth - London
2020	Dr Daniel Gonzalez Carter - Barcelona
2021	Dr Rui Pereira - Barcelona
2021	Dr Mohit Kumar - Barcelona
2021	Dr Iris Batalha - Barcelona
2022	Dr Silvia Acosta Gutierrez - Barcelona

Postdoctoral researchers (4)

2018	Dr Diana Lorenzo Matias - London
2021	Dr Catia Lopes - Barcelona
2022	Dr Subhadib Ghosh - Barcelona

Past PhD students (total 32)

2006-2009	Dr Hannha Lomas now Research Associate University of Newcastle -Australia
2007-2010	Dr Thomas Smart now Microscopy Scientist at Eastman Chem USA
2007-2010	Dr Luke Brown now Project Manager at GRANTA DESIGN, UK
2007-2011	Dr Martin Gill now Lecturer at University of Swanses, UK
2007-2011	Dr Marzia Massignani now Scientific Affair Manager at Sunstar Suiss SA, Switzerland
2008-2011	Dr Vanessa Hearnden now Lectuerer at Universtiy of Sheffield, UK
2007-2011	Prof Miriam Flores-Merino (Associate Professoer at UAEMéx, Mexico
2008-2012	Dr Nick Warren now University Academic Fellow at University of Leeds, UK
2009-2012	Prof Kornchanok Wayakanon now Assistant Professor at Naresuan University - Thailand
2008-2012	Dr Carla Pegoraro now Senior Editor for PLoS One, UK
2009-2012	Prof Nisa Patiakrnomothon now Associate Professor at Mahidol University -Thailiand
2009-2013	Dr Priya Viswanathan now Senior Scientist- Medicines Discovery Catapult -UK
2010-2013	Dr Daniel Little now Scientist at BioClavis Ltd. UK
2009-2014	Dr Russell Pearson now NHS Liaison for AI at MHRA, UK
2010-2014	Dr Milagros Avila-Olias now International Agent for Health Promotion and Development, Guatemala
2011-2014	Prof Xiaohu Tian now Associate Professor at Sichuan University and group leader at the Huaxi Hospital Research Centre, China
2011-2014	Dr Adrian Joseph now Analyst Programmer at Tessella, UK
2011-2014	Dr James Robertson now Scientist at Matsuma, UK
2011-2015	Dr Guy Yealland now Research Fellow at FU Berlin, Germany
2012-2016	Dr Luca Chierico now Corp. Business Developmentat Zambon, Italy
2012-2016	Dr Gavin Fullstone now Postdoctoral Fellow at the Universität Stuttgart, Germany
2013-2016	Dr Sophie Nyberg now Senior Scientist- Medicines Discovery Catapult -UK
2014-2017	Dr Claudia Contini now Postdoctoral Fellow at Imperial College London, UK
2013-2017	Prof Kamolchanol, Ngamkham now Assistant Professor at King Mongkut's University of Technology Thonbur, Thailand
2013-2017	Dr Monika Magon now Technology & Research Analyst – Roche, Poland
2014-2018	Dr Eva Liatsi-Dovitsa now Postdoctoral Fellow at University College London, UK
2015-2019	Dr Ciro Lopez Vazquez now Solution Engineer at Appian Corp.
2015-2019	Dr Senio Campos de Souza now Research Fellow at University of Macau, China
2016-2020	Dr Virginia Gouveia (Now Senior Scientist at SomaServe Ltd, UK)
2016-2020	Dr Carlos Noble-Jesus (now Data analyst at Oviva London Ltd)
2017-2021	Dr Maria Belen Sola-Barrado (Now Data analyst at Clarivate)
2016-2021	Dr Gabriele Marchello (Now Postdoctoral Fellow at the Italian Institute of Technology, Milan)

Past Postdoctoral researchers (total 31)

2007-2009	Dr Caterina Lo Presti now Division Head Novartis, Switzerland
2009-2011	Dr Adam Blanz now Research Laboratory Manager at BASF, Germany
2009-2010	Dr Chiara Valori now Postdoctoral Fellow at DZNE, Germany
2009-2012	Prof Abhishek Chaudhuri now Associate Professor at the IISER MOHALI, India
2009-2012	Prof Linge Wang Full Professor at South China University of Technology, China
2009-2012	Dr Pual Sharp now Research Associate at the University of Manchester, UK
2010-2012	Dr Nooshin Daneshpour now Pharmaceutical Scientist at PPT Pantheon, Canada
2011-2012	Dr Pierre Chambon now Research Coordinator at University of Liverpool, UK
2010-2013	Dr Hellen Colley now Lecturer at University of Sheffield, UK
2011-2013	Dr Chris Millington now Scientist at MRC Laboratory of Molecular Biology Cambridge, UK
2009-2013	Dr Irene Canton now Postdoctoral Fellow at University of Sheffield, UK
2009-2013	Dr Jeppe Madsen now Senior Research Fellow at Technical University of Denmark, Denmark
2010-2013	Dr Efrosyni Themistou now Lecturer at Queen's Belfast University, UK
2016-2017	Dr Luca Chierico now Corp. Business Development Manager at Zambon, Italy
2013-2016	Dr Lea Messenger now Postdoctoral Fellow at University of Lyon, France
2013-2016	Dr Jens Gaitzsch now Junior Group leader at Leibniz Institute for Polymer Science, Dresden, Germany
2014-2017	Dr Adrian Joseph now Analyst Programmer at Tessella, UK
2017-2018	Dr Monika Magon now LifeArc Senior Analyst, UK
2017-2018	Dr Cecila Zorzi Bueno now Postdoctoral Fellow at U Sao Paulo, Brasil
2014-2018	Dr Alessandro Poma now Lecturer at University College London, UK
2019-2019	Dr Valentina Senatore now senior manager at MRC LMCB UCL, London, UK
2018-2020	Dr Eva Liatsi-Douvita not updated
2018-2020	Dr Sobia Noreen now Lecturer in Lahore University Pakistan
2017-2020	Dr Edoardo Scarpa now PDRA with Houston methodist USA
2017-2020	Dr Laura Rodriguez Arco now Assistant Professor, University of Granada, Spain)
2013-2020	Dr Loris Rizzello now Associate Professor, University of Milan, Italy
2020-2021	Dr Spyridon Varlas now PDRA at University of Sheffield
2017-2021	Dr Aroa Duro Castaño now Research Director at PTS Ltd, Valencia, Spain
2018-2021	Dr Diana Moreira Leite now Senior Scientist at CSRO Nottingham, UK
2019-2021	Dr Azzurra Apriceno now Senior Scientist at BionTech, Mainz, Germany
2018-2021	Dr Ian Williams now PDRA at University of Surrey
2019-2021	Dr Yangwei Deng now Senior Chemist at SomaServe Ltd

10 Knowledge Transfer

Patents (total 12)

Filed

2020	WO2020144467A1 POLYMERSOMES FUNCTIONALISED WITH MULTIPLE LIG- ANDS
	WO2020225538A1 PRODUCTION OF NANOPARTICLES AND MICROPARTICLES
2019	US20190046445A1 CHEMOTACTIC DELIVERY TO THE BRAIN
2018	WO2017199023A1 ANTICANCER FILOPOLYMERSOMES
	WO2017191444A1 ANTI TB NANOPARTICLE FORMULATION
	WO2017158382A1 FUMARATOSOMES: ANTIINFLAMMATORY NANOPARTICLES
2014	US20150376567 MEDIA FOR STEM CELLS
2010	WO2010032056 DINUCLEAR RUTHENIUM COMPLEXES FOR STAINING CELLU- LAR DNA
2009	US2009286274 METHOD OF MONITORING LIVE CELLS
	US20110111036 INTRACELLULAR ANTIBODY DELIVERY
	US9254258 AMPHIPHILIC BLOCK COPOLYMERS FOR NUCLEIC ACID DELIVERY
	US20110150941 EPITHELIAL DELIVERY